

AMENDMENT UNDER 37 CFR § 1.111
Serial No. 09/899,265

REMARKS

A total of 28 claims remain in the present application. The foregoing amendments are presented in response to the Office Action mailed July 27, 2005, wherefore reconsideration of this application is requested.

By way of the foregoing amendments, claims 1, 12 and 25 have been amended to define that the forwarding policy used to control forwarding of LSAs is implemented "on a per-router basis, such that an area border router (ABR) of the data network has a respective forwarding policy which differs from that of at least one other area border router (ABR) of the data network". This feature is described at lines 1-10 of paragraph [0038 of the originally filed specification. As such, no new subject matter has been introduced by way of the foregoing amendment.

Referring now to the text of the Office Action:

- claims 1-6, 10, 12-15, 17-22, 25 and 28-29 stand rejected under 35 U.S.C. § 102(e) as being anticipated by United States Patent No. 6,473,421(Tappan);
- claims 7-8, 23-24 and 30-31 stand rejected under 35 U.S.C. § 103(a) as being obvious in light of United States Patent No. 6,473,421(Tappan) in view of Applicant's admitted prior art; and
- claims 11, 18 and 27 stand rejected under 35 U.S.C. § 103(a) as being obvious in light of United States Patent No. 6,473,421(Tappan) in view of Applicant's admitted prior art, and further in view of United States Patent No. 5,265,092 (Soloway)

It is believed that the Examiner's claim rejections are fully traversed by way of the above-noted amendments, and further in view of the following comments.

Rejections under 35 U.S.C. § 102(e)

At paragraph 28, the Examiner asserts that:

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- "the applicant argues in substance that Tappan fails to teach or suggest that the forwarding policy is implemented on a per-router basis, such that each router can have a respective different forwarding policy;
- The Examiner ... disagrees because Tappan does teach that routers have different forwarding tables. When a router receives an IP datagram, the router searches its forwarding table for a match. When it finds a match, it routes the packet accordingly."

It is well known that a "forwarding table" and a "forwarding policy" are entirely different entities, and are in no way equivalent. In particular, a "forwarding table" provides a listing of match criteria and associated link identifiers. Thus, as suggested by the Examiner, when an IP datagram is received, the forwarding table can be searched (using the match criteria) to identify links to which the datagram should be forwarded. A more detailed example of this operation is described at paragraph [0009] of the background portion of the present specification.

A "forwarding policy", on the other hand, is well known to define the logic which governs the forwarding of the datagram. Thus, the above-mentioned example of the operation of the forwarding table represents one particular forwarding policy. Literally: "IF (Match=true) THEN forward datagram to (Next hop, Next Hop Interface), ELSE discard the datagram". The "forwarding table" provides the data (i.e. the match criteria and associated Next hop and Next Hop Interface identifiers) needed to implement the rule, but it does not provide the rule's logic.

The mere presence of different forwarding tables in each router does not in any way imply that different forwarding policies are implemented in each router. Accordingly, applicant respectfully submits that the Examiner's reason for sustaining his previous rejections is unsustainable, because it improperly equates forwarding tables with forwarding policies.

The presently claimed invention "enables policy based control over traffic forwarding ... by implementing policy based control over the propagation of LSA messages". (See Para. [0038], lines 1-4). In a similar vein, at Col 8, lines 39-46, Tappan teaches that each area border router (ABR) implements the algorithm of FIG. 9 upon receipt of an LSA. As such, the person

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or ordinary skill in the art will recognise that FIG. 9 provides the logic governing the handling of received LSA's. To the extent that this algorithm includes decisions regarding the forwarding of the LSA into a neighbouring area (blocks 52, 54, 58 and 60), it can be considered to define a "forwarding policy".

It should be noted, however, that while the algorithm of Tappan FIG. 9 does provide a "forwarding policy" of sorts, such a forwarding policy does not anticipate or obviate that of the present invention. As can be seen in FIG. 9 and the accompanying description, the content of the route tag field is primarily used to trigger execution of the routine, and also (via the control flag values) to indicate whether or not a filtered LSA should be generated. Beyond this, however, the decisions that govern the LSA message forwarding (i.e. blocks 50, 52 and 58) rely on the content of fields other than the route tag field, such as the Link State ID, Advertising Router and Forwarding Address. Thus, it will be seen that while the "forwarding policy" of Tappan FIG. 9 is triggered by the content of the route tag, actual handling/forwarding decision are controlled by the content of other fields.

Furthermore, Tappan teaches that the algorithm of FIG. 9 is implemented in every Area Border Router (ABR). In contrast, the present invention requires that the forwarding policy (controlling forwarding of LSAs) is implemented on a per-router basis "such that an area border router (ABR) of the data network has a respective forwarding policy which differs from that of at least one other area border router (ABR) of the data network".

Tappan does not teach or fairly suggest the claimed features of "controlling propagation of the LSA using a forwarding policy having a match criteria corresponding to the asserted route tag; and wherein the forwarding policy is implemented on a per-router basis such that an area border router (ABR) of the data network has a respective forwarding policy which differs from that of at least one other area border router (ABR) of the data network". Accordingly, it is respectfully submitted that Tappan fails to teach every feature of independent claims 1, 12 and 25, wherefore reconsideration and withdrawal of the Examiner's rejections under 35 USC § 102(e) is respectfully requested.

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Rejections under 35 U.S.C. § 103(a)

As discussed above, United States Patent No. 6,473,421(Tappan) does not teach or suggest all of the features of the present invention. The other known prior art references fail to provide the missing teaching. Applicant's admitted prior art describes well known LSA message types, and the use of LSAs to advertise explicitly defined exclusion routes (see for example, paragraph 11, and Co-assigned United States Patent Application No. 09/662,108). However, none of these teach or suggest policy-based control of LSA propagation, as provided by the present invention.

In light of the foregoing, it is submitted that the presently claimed invention is clearly distinguishable over the teachings of the cited references, taken alone or in any combination. Thus it is believed that the present application is in condition for allowance, and early action in that respect is courteously solicited.

If any extension of time under 37 C.F.R. § 1.136 is required to obtain entry of this response, such extension is hereby respectfully requested. If there are any fees due under 37 C.F.R. §§ 1.16 or 1.17 which are not enclosed herewith, including any fees required for an extension of time under 37 C.F.R. § 1.136, please charge such fees to our Deposit Account No. 19-5113.

Respectfully submitted,
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